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66. *Hesperocichla nœvia*. VARIED THRUSH. — Tolerably common in the deeper woods; first young, scarcely feathered, taken on July 2. By August 1, the young began to gather in considerable numbers and together with the Robins and other Thrushes were feeding on the blueberries.

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## THE SUMMER BIRDS OF THE WEST VIRGINIA SPRUCE BELT.

BY WILLIAM C. RIVES, M. D.

THE portion of the mountain region of the Virginias to which the present paper relates, is spoken of in the following terms in an amusing sketch in 'Harper's Magazine' for December, 1853 (Vol. VII, p. 18). "In Randolph county, Virginia, there is a tract of country containing from seven to nine hundred square miles, entirely uninhabited, and so inaccessible that it has rarely been penetrated even by the most adventurous. The settlers on its borders speak of it with dread, as an ill-omened region, filled with bears, panthers, impassable laurel brakes and dangerous precipices. Stories are told of hunters having ventured too far, becoming entangled, and perishing in its intricate labyrinths." Its features are also depicted in a volume called 'The Black-water Chronicle' (New York, 1853), which treats of a hunting trip to the locality in question, and a brief allusion will be found in 'Picturesque America,' Vol. I, pp. 390, 391. It is now partly within the limits of Tucker County, and forms, or we shall soon be obliged to say formed, a part of the black spruce belt of West Virginia. "It is probable," says Major Hotchkiss, an authority on the natural resources of the Virginias, "that nowhere in the United States are now existing denser forests than those of black spruce in the belt of country, more than 100 miles in length and from 10 to 20 in breadth, that extends through Greenbrier, Pocahontas, Randolph and Tucker Counties. Only the northern end of this vast spruce forest has been penetrated by railways, the

West Virginia Central and Pittsburgh R. R. being the only one that has yet really entered into it."

The region of spruce thus described, consists of a lofty plateau lying almost exclusively to the west of the main Alleghany range, varying in altitude from 2500 to 3000 feet and traversed in a general northerly and southerly direction by various mountain ridges five to fifteen hundred feet higher, the maximum elevation above sea level being about 4700 feet. It contains in its northern portion the sources of the Cheat and North Branch of the Potomac Rivers and in its southern, the head waters of the Greenbrier, a branch of the New River.

The area of which in particular I speak is drained by the Blackwater River with its tributaries, which rising in the so-called Canaan valley flows tranquilly at an unusually high altitude for nearly a dozen miles, with a fall of probably not more than one hundred and fifty feet in that distance, until reaching the steep western edge of the plateau it plunges swiftly downwards to enter the Dry Fork of Cheat River. The sources of the Blackwater and of the North Branch of the Potomac, it may be remarked, are separated by an almost imperceptible difference of level. This section of the country maintained its primitive wildness until about fifteen years ago, when the West Virginia Central and Pittsburgh R. R. penetrated its forests and the town of Davis was established at the junction of Beaver Creek with the Blackwater, not far from the picturesque falls of the latter stream. In company with Mr. Bancel LaFarge I spent the period from June 4 to June 12, 1891, at Davis, finding the general aspect similar to that of Maine or northern Wisconsin, rather than in accordance with one's preconceived ideas of a southern State, and the avifauna, as might have been anticipated, markedly Canadian and Alleghanian in character, whereas in most other parts of the Virginia mountains, where the above faunæ exist, we usually find them overlapped by the Carolinian. No one, however, who now visits the Blackwater country will find a region of exclusively virgin forests such as is described in the writings to which I have referred. Saw-mills, tanneries, pulp mills and lumber camps stand where the timid deer formerly came to slake its thirst and the ponderous and unwieldy bear found an unmolested abode,

and it is for the most part requisite to travel for many miles from the railway to find a place to which the wood cutter has not yet penetrated.

With Dr. William C. Braislin, I revisited Davis last summer, staying from June 9 to June 15. The destruction of timber which had already begun before the time of my first visit had progressed with startling rapidity, during the six years that had elapsed, and instead of the more or less unbroken sea of green tree tops formerly visible, the eye now rested upon a country disfigured by prostrate logs stripped of their bark, misshapen and unsightly stumps, and dead trees blackened and destroyed by fire. Railways for getting out the timber, or tramways as they are locally designated, have been forced into the heart of the woods in several places and the spruce cut down for many miles. The Beaver Creek Railway starting from Davis has now, I believe, been constructed for as much as eighteen miles, and a wide belt of timber on each side removed. In a few directions, however, it is still possible to reach the forest from Davis without great difficulty, the nearest point being about a mile and a half. These forests which are being thus so rapidly removed, consist principally of black spruce, hemlock and birch, the spruce being valued for its timber and the hemlock mainly for its bark. They are very dense and contain trees of magnificent proportions, while they are rendered practically impassable wherever it occurs, by the laurel (*Rhododendron maximum*), which covers abundantly the extremely rough and uneven surface of the ground and forms continuous 'brakes' of great extent. The earth beneath is often carpeted with moss and lycopodiums, but with the exception of the *Oxalis acetosella* and an occasional trillium, no great variety of flowering plants was observed. The forests of evergreens do not, however, appear to occupy the country exclusively. A half mile or so to the north or northwest of Davis, the spruce seems to end and deciduous trees to be found, and we were told of the existence of beech woods, mention being also made of 'glades' comparatively open, in a south-easterly direction towards the Canaan valley. In the streams of this region, trout are to be taken in numbers, but the various mills at Davis have destroyed the fishing in the Blackwater below the town, and it is necessary to go some dis-

tance to its head waters, to catch them. Among the mammals showing the northern character of the fauna, the Red Squirrel (*S. hudsonicus*) is commonly found. As the timber is being cut out, a corresponding change is taking place in the avifauna; many of the Warblers and other Canadian birds have naturally disappeared and the cleared land has been occupied in their stead by Towhees, Song Sparrows, Catbirds, House Wrens and other birds of the more open country, while the dead timber is very congenial to Woodpeckers, so that there was a marked alteration in the distribution of the birds in the vicinity of the town, between my first and second visits. The Snow Birds, however, were evidently little affected by the changes and were as abundant in the cleared land as in the forests.

In exploring the country in search of birds, particular attention was devoted to the spruce forests, as likely to be the special home of the Canadian fauna, and time employed in searching the other woods would doubtless have been rewarded by finding there some additional species. Almost all of the birds were excessively shy; the song of the Winter Wren constantly trilled forth from the depths of the rhododendron thickets, but the tiny songster himself was seldom seen, and though the notes of the Magnolia and other Warblers were frequently heard, it was often a most difficult achievement and necessitated straining one's neck to the utmost, to get a sight of these interesting little birds, as they flitted from one lofty tree top to another. I append a list with brief notes, of the different species observed.

1. **Aythya affinis.** LESSER SCAUP DUCK.—On June 11, Dr. Braislin obtained a Duck from a young man who told us it had just been shot on the Blackwater River. It proved to be a Lesser Scaup, female. In this connection it is of interest, as Dr. Braislin has pointed out to me, that Mr. W. E. Clyde Todd has found this species in the breeding season in Western Pennsylvania.

2. **Actitis macularia.** SPOTTED SANDPIPER.—One or two noticed along the Blackwater.

3. **Bonasa umbellus.** RUFFED GROUSE.—Said to occur in the neighborhood. Reported to have been seen during our stay last summer.

4. **Cathartes aura.** TURKEY BUZZARD.—Two were seen June 10, 1897, if we were not mistaken, in the distance high in air. The rarity of this bird was especially noticeable.

5. **Dryobates villosus.** HAIRY WOODPECKER.—Not uncommon.

6. *Dryobates pubescens*. DOWNY WOODPECKER.— Only observed once or twice.

7. *Sphyrapicus varius*. YELLOW-BELLIED WOODPECKER.— A fine male specimen was taken by Dr. Braislin, June 12, 1897.

8. *Ceophloeus pileatus*. PILEATED WOODPECKER.— Known to the residents of the region under the name of Woodcock. None, however, were seen during either of my visits.

9. *Melanerpes erythrocephalus*. RED-HEADED WOODPECKER.— Apparently not uncommon in the clearings.

10. *Colaptes auratus*. GOLDEN-WINGED WOODPECKER.— One or two noted.

11. *Chordeiles virginianus*. NIGHTHAWK.— A few seen at evening.

12. *Chaetura pelagica*. CHIMNEY SWIFT.— Occasionally observed.

13. *Sayornis phoebe*. PEWEE.— Only once or twice noted.

14. *Contopus borealis*. OLIVE-SIDED FLYCATCHER.— One or two pairs were observed along the Blackwater River in June, 1891, apparently breeding. None seen last year.

15. *Contopus virens*. WOOD PEWEE.— The notes of this species were heard on one or more occasions.

16. *Cyanocitta cristata*. BLUE JAY.— Occasionally to be met with. Not uncommon.

17. *Corvus corax principalis*. NORTHERN RAVEN.— We saw on several occasions, last June, and heard the hoarse notes of birds which we had little hesitation in referring to this species, and though, as far as they were concerned, we may perhaps be said like Mr. Torrey, who has lately described<sup>1</sup> so pleasantly his experiences 'In Quest of Ravens,' to have brought back with us, strictly speaking, only interrogation points, yet I think our identification was undoubtedly correct. The bird, moreover, seemed to be well known to the dwellers in those parts, who informed us that there were no Crows in the region. This agrees with Mr. Brewster's observation that the two species do not occur together in the North Carolina mountains. The Ravens, we were told, came to the slaughter houses morning and evening for food, but as we were not quite so confident of the regularity of this habit as our informant, we did not test the accuracy of his knowledge, in the short time at our disposal. I think that I also saw Ravens on my former visit in 1891.

Mr. Kirkwood, in his 'List of the Birds of Maryland,' mentions, on the authority of J. H. Fisher, Jr., that during Christmas week, 1892, about 20 were seen at Bayard, W. Va., but that they could not be approached within rifle shot. On Dec. 6, 1893, several were seen at the same place. Bayard is a comparatively short distance north of Davis, at a somewhat lower elevation.

18. *Quiscalus quiscula æneus*. BRONZED GRACKLE.— Three observed together on June 12, 1897, one of which was taken by Dr. Braislin, and

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<sup>1</sup> Atlantic Monthly, June, 1897.

proves on further examination to be, in some degree, an intermediate and not quite typical.

19. *Spinus tristis*. AMERICAN GOLDFINCH.—Several were seen in the open on June 12, 1897.

20. *Passer domesticus*. ENGLISH SPARROW.—Common about the town of Davis.

21. *Spizella socialis*. CHIPPING SPARROW.—Not uncommon.

22. *Spizella pusilla*. FIELD SPARROW.—The notes of this bird were recognized by Dr. Braislin.

23. *Junco hyemalis carolinensis*. CAROLINA JUNCO.—Abundant everywhere; this and the Song Sparrow were the most numerous species observed. Birds from this locality approach the southern form of Junco more nearly than some of Dr. Dwight's Pennsylvania specimens, which he kindly showed me, and in fact appear to be decidedly *carolinensis*.

24. *Melospiza fasciata*. SONG SPARROW.—Abundant throughout the cleared land, in the underbrush.

25. *Pipilo erythrophthalmus*. TOWHEE.—Rather common in the clearings.

26. *Progne subis*. PURPLE MARTIN.—Last season, three or four pairs occupied Martin boxes in the town. Also seen on my previous visit.

27. *Chelidon erythrogastra*. BARN SWALLOW.—A few individuals noted on the edge of the town by the river.

28. *Ampelis cedrorum*. CEDAR BIRD.—Not uncommon. Observed to be apparently nesting in 1891.

29. *Vireo solitarius*. SOLITARY VIREO.—Very shy. Certainly once identified in 1891. Notes attributed to this species not infrequently heard.

30. *Dendroica caerulescens*. BLACK-THROATED BLUE WARBLER.—Rather common in the forest. These Warblers usually had black on the back, but varied in the amount, some being almost typical *caerulescens*, and others having little or no trace of it.

31. *Dendroica maculosa*. MAGNOLIA WARBLER.—The commonest of the Warblers in the spruce forests.

32. *Dendroica virens*. BLACK-THROATED GREEN WARBLER.—Apparently the least common Warbler; extremely shy.

33. *Dendroica pensylvanica*. CHESTNUT-SIDED WARBLER.—Rather common in the half cleared land. Not found in the spruce forests. Not observed in 1891.

34. *Seiurus noveboracensis*. NORTHERN WATER THRUSH.—Very retiring but rather common along the streams.

35. *Geothlypis philadelphia*. MOURNING WARBLER.—Seemingly not rare in the clearings among the bushes. Individual males were singing within certain limited areas. The females kept themselves well concealed, for none were detected. This, I believe, is the furthest southern record for this species in summer.

36. *Geothlypis trichas*. MARYLAND YELLOW-THROAT. — The notes of this bird were heard by both of us on June 10, 1897, and one was seen by Dr. Braislin. Not recorded in 1891.

37. *Sylvania canadensis*. CANADA WARBLER. — Not uncommon in the forest, sometimes occurring in pairs, which were doubtless, from their actions, breeding.

38. *Galeoscoptes carolinensis*. CATBIRD. — Not uncommon.

39. *Troglodytes ædon*. HOUSE WREN. — Unusually abundant among the stumps and half burnt trees of the cleared land, where its song was frequently heard. Dr. Braislin discovered a nest containing seven eggs, in a cavity at the end of a fallen partially burnt tree, on June 10, 1897.

40. *Troglodytes hiemalis*. WINTER WREN. — Abundant in the forest, finding a most congenial home among the rhododendrons, which for the most part effectually concealed its presence, until its proximity was disclosed by its beautiful song.

41. *Certhia familiaris americana*. BROWN CREEPER. — Not uncommon. Frequents the hemlocks.

42. *Sitta canadensis*. RED-BREASTED NUTHATCH. — Not uncommon. The drawling character of its notes distinguish it readily from the White-breasted, which was not observed.

43. *Parus atricapillus*. BLACK-CAPPED CHICKADEE. — Rather common.

44. *Turdus ustulatus swainsonii*. OLIVE-BACKED THRUSH. — A male specimen was taken by Dr. Braislin, June 14, and others were heard. This is, so far, the furthest southern record of the species in summer. Owing to their excessive shyness and the very rough character of the country, it was almost impossible to obtain a sight of these birds, but I am inclined to consider them not uncommon. The measurements of the one secured are as follows: Wing, 3.98; tail, 3.12; tarsus, 1.06; culmen, .50.

45. *Merula migratoria*. AMERICAN ROBIN. — Not very abundant; seen in suitable localities.

46. *Sialia sialis*. BLUEBIRD. — A few seen in the cleared land.

During our stay at Davis, Dr. Braislin and I also saw one or two small Hawks, of what species we were not quite certain, and were shown a Hawk's nest in a lofty tree, but did not see either of the pair to which it belonged. On June 13, we noticed a small bird on a telegraph wire in the town, apparently a Wren with rather a long tail. Its song which we did not recognize, differed from that of any Wren we were familiar with. After a few moments, it flew to the top of one of the houses, and we were unable to observe it further. We were disposed to regard it as Bewick's Wren.